Economic Notes by Banca Monte dei Paschi di Siena SpA, vol. 29, no. 1-2000, pp. 145–151

CONCLUSIONS

J. E. STIGLITZ

Let me first thank again the Monte dei Paschi Bank and Giovanni Ferri for helping to organize this conference, which I think has gone splendidly. I would like to spend just a few minutes reflecting on the subject of the conference: *The East Asian Crisis: Lessons for Today and Tomorrow*. Obviously, in a day and a half, one can only scratch a few aspects of the key issues of such a huge subject and I would now like to make a few remarks about two types of topics: those topics that we have talked about insufficiently, for which I felt my appetite was whetted but not satisfied, and some other topics that perhaps one might be able to tackle on another occasion.

I will start with the topics for which my appetite was whetted, but not fully satisfied. Yesterday, the discussion on the issue of forecasting left me a little bit dissatisfied. Let me explain why. I think this is an important issue. Looking at the charts that were presented, it is clear that the depth of the downturn was not accurately predicted. The question then is: "Why weren't we able make more adequate predictions considering that for the last 50 years economists have been working on formulating models to try to predict where the economy is going to go?" It is therefore rather disappointing that when we really need the models they do not perform well. We didn't need fancy econometric models to tell us that the turnout was going to be either 2 or 4 per cent. We needed models to tell us what was going to happen. Now, I do not want to blame forecasters excessively: the first session yesterday brought out the fact that forecasting, and predicting crises is very difficult. This is also consistent with the wealth of data testifying that forecasting turning points in cycles is very difficult: a case in point is that there is a literature now developing that basically says that, with well-managed macro policies, it should be impossible to predict the end of expansions. Accordingly, in that framework, the only reason expansions end is precisely because of an event that was not predicted. So, in that perspective, missing downturns and missing turning points is inevitable: we will always have this problem. Crises are a little bit different, though. My sense of frustration is smaller at not being able to predict crises: I don't feel that badly about it; I wish we could do it, but that's part of life.

On the contrary, it is quite a different matter, a crisis having occurred, not to be able to assess adequately the evolution of that downturn, what income will be in three months, or six months from now. I view this failure to be a very serious one. I would like to castigate econometricians for that failure. In particular, there are two aspects that I would like to emphasize. The first is: how should we think about policy and forecasting? Here, I believe, there was a fundamental policy mistake, and I think it is important for this to be understood, and hopefully, by being understood, there will be discussions to prevent this from happening again in the future. When the crisis erupted, there were discussions in which some of us said the downturn would likely be quite severe. At that time, others replied "If you are right, we will adjust policy when it turns out to be proven that you are right." That is a fundamentally flawed way of approaching economic policy and it is remarkably different from the way policy was pursued in the White House and in any responsible government in the G7. Indeed, one of the main things that you are taught in the first year of graduate school is that there are lags and irreversibility. Now, what does that mean? It means that if you wait and say: "We'll see what the nature of the downturn is, see if it is steep, before we adjust the policy", then it is too late. Because it would take six to nine months for the effects of the policy change to be fully realized: the standard wisdom is the fact that monetary lags are long and variable. Thus, policies based on waiting to see what happens, before you adjust those policies, are fundamentally flawed.

This means that, in addressing policy, you have to take a perspective with a recognition of the lags, and then a well-defined concept of your loss function and what the asymmetries of response are going to be. Now, what does that mean? It means that – let me put it fairly crudely – it is much easier to destroy firms than to create them. I can very easily tell you how to put all the firms in the economy into bankruptcy. I cannot tell you, having put them into bankruptcy, how to create a million firms in a year. Alas, when firms go bankrupt, there is a destruction of the most important part of the capital in an economy, which is its informational organizational capital. This entails a real hysteresis effect: once that capital is destroyed, it cannot be easily recreated. Then we need to be very risk-adverse to take actions that might lead to the destruction of that informational and organizational capital. In the case of East Asia, if we recognize that the debt-equity ratios of these countries are very high and we pursue the policies that have the likelihood of putting a lot of firms over the brink into bankruptcy, we are doing harm to the economy that is not going to be reversed quickly.

Let me put it even more forcefully. I focused on bankruptcy, but bankruptcy is only the worst tip of the iceberg. According to the accountant's view, if you raise interest rates and then you realize this was wrong, you can lower them and undo what you did, with no consequence. In my opinion, this is view is ill-based because in the period in which interest rates are raised, even if you don't destroy informational capital, by putting firms into bankruptcy, you deplete the net worth of the firms, you transfer money out of the firm's equity to its lenders. This problem would not be serious if we had perfect capital markets: then it would be very easy to recreate equity in the firms by issuing new shares. Unfortunately, theory and evidence on this was not brought out as strongly as it could have been when policy actions were decided. For example, regarding Korea, it was only after the high interest rate policy was enacted that everybody agreed that one of the original problems of Korea was that it had too high debt-equity ratios. Nevertheless, what happened after the raise in interest rates? We depleted firms' equity and their debt-equity ratios after that were worse than before, as firms had to pay out all the cash to the lenders. Thus, we put the financial position of the firms in a much weaker position.

There is a well-defined literature on why equity markets work imperfectly and why you cannot easily raise new equity. In effect, if you look around the world, even in countries with good corporate governance, you will find that a relatively small fraction of new capital is raised through equity markets. Thus, the damage caused by the high interest rates cannot be undone overnight. That is, the net worth of the firms beginning from an episode of high interest rates is far weaker than it was before, and, therefore, the effects are going to be long-lived. This is something that we knew before the East Asian crisis. In a way, one of the reasons I have been absolutely fascinated by the East Asia crisis is that I had written models in which I talked about all these effects and it was almost as if somebody decided to run an experiment to test some of my theories. I must say that I take no pleasure to notice that, unfortunately, my models scored much better than I had anticipated. The kind of disastrous consequences of those policies that were precisely anticipated did happen.

Thus, my first point is that forecasting will always be uncertain, and economic policies should be selected taking account of this uncertainty and of the "hysteresis" effects, something which I do not think was done adequately.

Still on the first point of predictions, related to the discussion above, we should ask ourselves: "Why didn't we do a better job at forecasting?" I would like to leave this as an open question. Nonetheless, I must say that I find it puzzling, because the basic models that we could have used, had we just taken a refreshment course in economics, would have told us the following. Consider Thailand: there is a stock market crash, there is a real estate crash, we could have predicted that consumption would plummet, and, by September 1997, in Thailand, we had data showing that car sales were down by 70 per cent. I do not know what others' reaction would have been, but I certainly know, if I had seen data like that for the USA, as Chairman of the Council of Economic Advisors, I would have committed hara-kiri. A 70 per cent decline in car sales is only one indicator but it is one that we use, because it comes out more quickly than other indicators and it was suggestive of a plummeting domestic consumption. I would have also predicted plummeting of investment, just based on a standard Tobin's q-model or on any other investment model. In addition, if I had read recent literature on how small and medium-sized business investment decreases when you have financial market problems – the literature on financial constraints – I would have been even more worried. Thus, I would have predicted more decreases in consumption and investment. Given that these economies were basically in macroeconomic balance, that is to say they had low inflation – inflation had come down in Korea from 5.5 to 4 per cent, and was very moderate in the other countries – the forecast of a sudden collapse in aggregate domestic demand would have led me to think: "This is going to be a severe recession, unless I take corrective action."

Indeed, the only hope was exports, but one thing that we should know – again, if we studied lag structures – is that typically investment responds with a lag to exports, and exports respond with a lag to exchange rate devaluation. Furthermore, particularly by the time I visited Indonesia and Korea, I would have recognized the well-talked-about weaknesses of Japan. Given the trade structure of East Asian crisis countries, I could have easily predicted that they were all going to be facing problems in their export markets. If we had, in addition, paid attention to integrating financing into the models, we would have worried about exporters not having credit in the short run and that would have further dampened their ability to export. All that would have led one to believe that there was going to be a severe economic downturn in Indonesia. Then, why that wasn't incorporated into the models and into the forecasts is an issue that I hope people engaged in forecasting ask themselves. It is not just the discussion of how well we did compared to the consensus forecast; hopefully, we can move beyond that and try to figure out where our models went wrong, and which components of our models went wrong. This should trigger a serious discussion on how our models are constructed and whether they incorporate financial variables adequately into the forecast. In such sense, this is an issue on which I think we just touched the tip of the iceberg, but I remain concerned.

The second broad set of issues for which we just touched the tip of the iceberg – and I thought the discussion was actually quite interesting – is the whole area of confidence. Everybody has recognized the importance of confidence; the large instability in expectations and movements of capital flows in and out has been an important factor. Paul Krugman, in a quite interesting article, puts forward the hypothesis that one of the reasons for the failure of policies to work in East Asia was that policy makers decided not to use basic economics and they put themselves in the place of 'armchair' market psychologists. In other words, policy makers did not do a very good job in predicting market psychology. To the extent that there are systematic patterns of beliefs, I think that this is a subject that can be analysed: indeed, this is one of the areas in which assertions were made with a great deal of confidence but with very little econometric support.

There are two areas of work approach to the issue. The first one of them has to do with the role of economists, since economists do not seem to have done a very good job in being market psychologists. Indeed, being a good market psychologist is particularly difficult, because there are different market participants and knowing the mindset of the Jakarta businessman (or the Bangkok businessman) is different from knowing the mindset of the Wall Street businessman; the two may work very differently and it may be that policy makers in Washington were on the phone more often with the people in New York than with the Jakarta and Bangkok businessmen and so they were hearing maybe different stories about expectations.

Thus, the first approach is to say that, as economists, we ought to focus on economics and not on being bad 'armchair' psychologists. If this is the case, we do know something about standard macroeconomic policy and we should try to maintain the economy at full employment or moving towards full employment: this is likely to have as good an effect on confidence as any other variable that we could focus on. Therefore, we can hold that policies that lead to severe recessions are not going to lead to improved confidence, particularly when there is enormous private debt, with high probability of bankruptcy. I believe this is an approach that probably ought to receive more attention in the future.

The second approach, at a more theoretical level and reflected in one of the papers presented here, is the multi-equilibrium models. According to this approach, there is more than one possible equilibrium: say we have both a 'good' and 'bad' equilibrium and, unless we manage expectations properly, we will wind up in the bad equilibrium. This is an area of great controversy, but one in which I believe there is room for more discussion.

A third area where we just scratched the surface pertains to the exchange rate systems. I think the point Ronald McKinnon made on the instability between the dollar and the yen is a major problem that the less-developed countries are going to have to come to terms with. This seems to me a very important perspective as we think about the less-developed countries. I do not see any easy way of managing the dollar–yen exchange rate. Given this, I think the less-developed countries, in their risk management systems, have to think about how to live in a world in which they will be dealing with multiple exchange rates varying all over the place, at least for the intermediate term. Again, I think this is an issue that is going to need further discussion going forward.

The fourth issue that we touched upon – in my opinion a very interesting issue – is the lending of last resort. Again, I think the ideas presented here – that there are differences between domestic and international contexts, that there is the danger that a lender of last resort with a minimum amount of liquidity might actually make things worse – are going to be discussed for a long while.

As a final issue, I would like to mention a topic that we didn't really discuss here: private bankruptcy law. Unlike the crises of the 1980s, in which there was much more heavily government indebtedness, the East Asian crisis reflected much more private indebtedness. When private parties cannot meet their debts, there is domestically a very simple way you resolve that issue: you go bankrupt. For instance, this is a very simple procedure in the USA, under Chapter 11. The creditors just wind up with less than they otherwise thought they were going to get and the business continues on. Chapter 11 is designed in a way to facilitate the continuation of the business, and it fits very much with a view that was presented earlier today, leaving up to the business not just as reflecting the interest of the shareholders or the bondholders, but representing a broader view of stakeholders. However, the main point is that Chapter 11 is a framework for allowing the business to continue to function while reorganizing its liabilities, the claims on that business. So, it maintains the organization of capital, the information of capital while changing the creditors' rights. Now, there are some people who view this as an obligation of contract. It is not. Every country has its bankruptcy law and when you lend money you know about that bankruptcy law: it is an implicit part of the contract. In fact, it is such an important part of the contract that you cannot write a contract that overrides the bankruptcy law, because of the public interest involved. Thus, the fact that when people go bankrupt the creditors lose something is viewed to be an essential part of modern capitalism. It is not an obligation of contracts, it is an essential part of how modern economies function. It is also not the case that efficient bankruptcy laws necessarily mean that owners are deprived of all their wealth before creditors are repaid fully. Bankruptcy laws provide a bargaining background, in which it is the case that typically owners retain shares even when creditors lose money. And one can show that debt is, in fact, part of an efficient bankruptcy design. There is no theorem that says that that equity owners must be deprived of all capital if creditors lose anything. That priority rule is a characteristic of some bankruptcy systems, but it is not necessarily so.

This is related to the point made above that the approach towards systemic weaknesses in the financial system requires a fundamentally different approach than towards isolated bank failures. The same thing is true with systemic bankruptcy. When 50 or 75 per cent of the firms in the economy are bankrupt, you need a different bankruptcy law than you do when only one or two firms are bankrupt. The inferences that you make, the consequences, all those, are fundamentally different. Therefore I advocate what I call a Super-Chapter 11, which basically takes the notion of Chapter 11 in the United States Bankruptcy Law, which is a relatively rapid reorganization with deference given to the reorganization proposal of management. Super-Chapter 11 increases the speed and gives greater deference towards the proposal of reorganization of management and gives the borrower more rights than under Chapter 11. This would hasten, I think, the resolution of the adverse supply-effects, which now afflict many of the countries in East Asia. As we look ahead, I think future crises will increasingly be private sector crises like the East Asia one and we will need to deal with this issue. I think it is a fundamental mistake to force the public assumption of private debt. I believe we ought to move bankruptcy laws in the direction that if lenders make bad loans, they will have to pay the cost and not the taxpayers in the developing or the developed world. It seems to me this would put international capital markets on the same footing as domestic capital markets.

The whole set of issues that we have been discussing raises a very important problem that I am just going to leave at the final end: within countries like those in the nineteenth century, when nation-states were being founded, the governments of the nation-states put into place regulatory frameworks that provided the institutional infrastructure, which allowed the market economy to develop. For instance, in the USA, the banking regulations were actually created in 1863 and it was remarkable that the USA were in the midst of Civil War and yet economists timed out to pass banking regulations. Why did they do it? Because they believed that, after the War, they wanted to create a national economy, and having a national banking system was necessary to that end.

The basic point I would like to make here is that as we move into a context which is more and more international – where international transactions are more important – various issues will surface: whether the national government structures are appropriate for international transactions and finance; whether we are going to require more international agreements – there is not the kind of national regulatory structures at the international level – or whether we need to evolve specific supra-national systems that are going to address that. I believe this is one of the main questions that will have to be debated in the coming years.